Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-12 (Canceled)

13. (Original) A device, comprising:

a first sub-device comprising:

a p-doped substrate;

a first n-doped region situated within said p-doped substrate;

a first p-doped region situated within said p-doped substrate; and

a first photosensitive region situated between said first n-doped region and said first p-doped region, within said p-substrate; and

a second sub-device comprising:

an n-doped substrate;

a second n-doped region situated within said n-doped substrate;

a second p-doped region situated within said n-doped substrate; and

a second photosensitive region situated between said second n-doped region and said second p-doped region, within said n-substrate, wherein said first p-doped region is electrically coupled to said second n-doped region.

14. (Original) The device of claim 13, wherein said first n-doped region is electrically coupled to a positive power supply rail.

15. (Original) The device of claim 14, wherein said first n-doped region is electrically coupled to said positive power supply rail by way of a first resistive element.

16. (Original) The device of claim 13, wherein said second p-doped region is electrically coupled to a negative power supply rail.

17. (Original) The device of claim 16, wherein said second p-doped region is electrically coupled to said negative power supply rail by way of a resistive element.

18. (Currently Amended) The device of claim 13, wherein said first n-doped region is electrically coupled to ~~said~~ a positive power supply rail by way of a first resistive element, and said second p-doped region is electrically coupled to ~~said~~ a negative power supply rail by way of a second resistive element.

19. (Original) The device of claim 13, wherein said first p-doped region and said second n-doped region are electrically coupled to a ground potential rail.

20. (Original) The device of claim 13, further comprising a fiber optic channel coupled to said first and second photosensitive regions.

21. (Original) A device, comprising:

a first sub-device comprising:

a p-doped substrate;

a first n-doped region situated within said p-doped substrate;

a first p-doped region situated within said p-doped substrate; and

a first photosensitive region situated between said first n-doped region and said first p-doped region, within said p-substrate; and

a second sub-device comprising:

an n-doped substrate;

a second n-doped region situated within said n-doped substrate;

a second p-doped region situated within said n-doped substrate; and

a second photosensitive region situated between said second n-doped region and said second p-doped region, within said n-substrate, wherein said first p-doped region is electrically coupled to said second p-doped region.

22. (Original) The device of claim 21, wherein said first p-doped region is electrically coupled to said second p-doped region by way of a resistive element.

23. (Original) The device of claim 21, wherein said first n-doped region is electrically coupled to said second n-doped region.

24. (Original) The device of claim 23, wherein said first n-doped region is electrically coupled to said second n-doped region by way of a resistive element.

25. (Original) The device of claim 21, wherein first p-doped region is electrically coupled to said second p-doped region and said first n-doped region is electrically coupled to said second n-doped region.

26. (Original) The device of claim 25, wherein said first p-doped region is electrically coupled to said second p-doped region by way of a first resistive element and said first n-doped region is electrically coupled to said second n-doped region by way of a second resistive element.

27. (Original) The device of claim 26, wherein said first p-doped region is electrically coupled to a ground potential rail, and said second n-doped region is electrically coupled to a positive power supply rail.

28. (Original) The device of claim 13, further comprising a fiber optic channel coupled to said first and second photosensitive regions.

29. (Original) A device, comprising:

a first sub-device comprising:

a first p-doped region;

a first n-doped region; and

a first p-doped photosensitive region to control a first current flowing from said first n-doped region to said first p-doped region in response to an optical signal; and

a second sub-device comprising:

a second p-doped region;

a second n-doped region; and

a second n-doped photosensitive region to control a second current flowing from said n-doped region to said second p-doped region in response to said optical signal.

30. (Original) The device of claim 29, further comprising a fiber optic channel to carry said optical signal, said fiber optic channel being coupled to said first and second photosensitive regions.